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ABSTRACT

The purpose of this study was to describe the relationship of sex, coach behavior, leadership style, and coach-player interaction in a university setting. A statistical experiment was designed using a population of 10 coaches (five male and five female) and six randomly selected players from each coach's team. The Leader Behavior Description Questionnaire-XII (LBDQ-XII) was used to record the player's perception of the coach's leader behavior, and the Least Preferred Co-Worker Scale was administered to each coach to obtain a measure of the coach's leadership style. The Cheffers Adaptation of Flanders Interaction Analysis System (CAFIAS) was used to describe player-coach interaction in terms of selected parameters. Results indicated that sex of the coach was not a factor in leadership style or behavior and that significant differences exist within rather than between the sexes. (Author/DS)

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An Analysis of Sex, Leader Behavior, Leadership Style and Coach Player Interaction

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Introduction

An approach to the study of coaching behavior which focuses directly on the requirements of leadership is long overdue. In many ways these persons face a unique set of leadership problems. As with others who anticipate entry into formal and highly structured organizations, they must learn those special aspects of the leadership process that surface when leadership begins by appointment rather than by group choice. In addition, however, coaches face a leadership situation where the division of subordinate loyalties between the team and outside individuals and agencies can impact heavily on team effectiveness and where the complex interface with society strongly influences the manner in which leadership is exercised. Because this unique combination of problems is not covered adequately by any single approach to leadership, coaches are forced into a hit-or-miss review of existing literature that often leaves them with more questions than answers.

Paralleling the development of woman's emerging role in society is the acute need for research which can help reduce the current confusion and uncertainty over the implications regarding leadership in education. According to (Bartol, 1972) much of what has been written has been based upon conjecture and opinion. Cheffers (1975) saw Title IX as opening the way for many citizens to question the truth of traditional sex roles. Sex role standards, dormant and irreversible for so long, are now changing, with women assuming much greater initiative in communal affairs. Some of these changes have challenged traditional male authority, bruised egos and possibly affected coach behavior. It then appears that

research into the area of coach sex and its relationship to the various aspects of leadership is both necessary and appropriate.

A multitude of research is available in the area of leadership in business and in the military and to a much lesser extent in education and coaching. A serious question remaining relates to the role of the coach and sex in the leadership process.

The purpose of this study was to describe the relationship of sex, leadership style and leadership behavior and coach-player interaction.

Procedure

The population from which the sample was drawn consisted of the Athletic department of a large, independent eastern university. The sample consisted of ten coaches; five of whom were male and five of whom were female.

Six randomly selected players from each team were asked to complete a questionnaire designed to describe the coach's leader behavior in terms of twelve sub-scales. Concurrently, the coach was asked to complete a questionnaire designed to measure leadership style. An experienced observer (r=.91) then coded coach-player interaction for a period of thirty minutes. Data were collected between the 8th and 10th week of the season.

Instruments

The Leader Behavior Description Questionnaire - XII (LBDQ-XII) was used to record the player's perception of the coach's leader behavior. The questionnaire consists of 100 items covering 12 variables or sub-scales. The overall reliability of the questionnaire as determined by

the Kuder-Richardson formula is reported at .85, by Stogdill, (1963).

The Least Preferred Co-Worker Scale (LPC) was used to measure the coach's leadership style as either high or low. According to Fielder (1967) the dichotomy is necesary in order to facilitate analysis. The scale consists of 16 bi-polar objectives. Fielder and Chemers (1974) reported a split-half reliability co-efficient of .90 for the instrument.

The Cheffers Adaptation of Flanders Interaction Analysis System (CAFIAS) was used to observe coach-player interaction as well as coach patterns of interaction. Cheffers (1974) demonstrated that CAFIAS had concurrent validity when compared with Flander's system, using a "blind-live" interpretation method.

Results

Coach player interaction and coach leadership style were compared using a t-test comparison of means. A 2 x 2 multi-variate analysis of variance was used to analyse coach sex and coach leadership style (independent variables) and the 12 sub-scales of the LBDQ-XII (dependent variable). Multiple regression analysis was used to test the correlations among coach leadership style, coach leader behavior sub-scales and selected CAFIAS parameters dealing with coach behavior and to attempt to predict leadership style from a number of predictor variables.

No significant t was found in the area of leadership style to differentiate between males and females on this dimension. Results are presented in Table 1.

A significant t was obtained on the parameter of player indication ratio (player suggested) $P < .01$, when comparing male and female coaches.

Results are presented in Table 2. Although the over-all multivariate F for the 12 dependent variables failed to reach significance, 2 significant univariate F's were obtained. These were on the sub-scales of consideration and tolerance of uncertainty. Results are presented in Table 3.

Through the use of multiple regression, a significant F was obtained for the dependent variables of leadership style. $F(9,22) = 2.403$, $P < .05$. A summary of all significant findings is included in Table 4.

Table 1

Comparison of Coach-Leadership Style

Sex	N	$\bar{X}$*	df	t
Male	5	47.8	8	.014
Female	5	48	8	

*Minimum score possible 16. Maximum score possible 128.

P $<$.05 = 1.86

Table 2

Comparison of Coach-Player Interactions

CAFIAS Parameter	Male Mean	Female Mean	t value
1. Total coach contribution	67.38	63.72	.3888
2. Total player contribution	31.48	32.82	.1466
3. Coach question ratio	13.27	11.37	.3548
4. Coach response ratio	70.00	67.96	.3605
5. Player initiation ratio-coach suggested	85.05	82.00	.4412
6. Player initiation ratio-coach suggested	41.21	74.64	2.971 *
7. Coach emphasis on content	63.93	60.93	.3087
8. Coach as teaching agency	97.12	94.10	.6561
9. Verbal behavior	54.29	51.99	.9767
10. Nonverbal behavior	45.75	48.01	.9711

*P $<$ .01

Table 3

Multivariate Tests of Significance for the

Interaction of Sex and Leadership Style (LPC)

Multivariate		F	P Less Than	R
		1.185	0.456	0.860
		Univariate F Tests		
LBDQ XII Variables		F(1 - 10)	Mean Square	P Less Than
Representation	1	0.356	3.362	0.559
Reconciliation	2	4.078	9.660	0.061
Tolerance of Uncertainty	3	8.051	80.802	0.012*
Persuasiveness	4	1.112	17.485	0.307
Initiation of Structure	5	0.225	6.161	0.642
Tolerance of Freedom	6	1.580	18.625	0.227
Role Assumption	7	0.401	9.384	0.535
Consideration	8	5.207	36.450	0.037*
Production Emphasis	9	0.011	0.421	0.919
Predictive Accuracy	10	1.210	6.160	0.288
Integration	11	0.015	0.180	0.905
Superior Orientation	12	0.180	2.048	0.677

* Significant at the .05 Level

Table 4

Summary of Results for Multiple Regression

Dependent Variable	Predictor Variables	r	df	Confidence Level	F
Leadership Style (LPC)	CAFIAS Variables 1 - 6 A.	.50	9.22	.05	2.40 *
Leadership Style (LPC)	LBDQ Totals Score	.29	9.22	.01	5.45 **
Leadership Style (LPC)	CAFIAS 1 (total coach)	-.26	9.22	.01	5.65 **
Leadership Style (LPC)	CAFIAS 5 (emphasis on content)	-.19	9.22	.01	5.83 **
Leadership Style (LPC)	CAFIAS 2 (coach question ratio)	.28	4.27	.05	2.73 *

*Significant at .05 confidence level

**Significant at .01 confidence level

A. CAFIAS 1. Total coach contribution

CAFIAS 2. Coach question ratio

CAFIAS 3. Coach response ratio

CAFIAS 4. Player initiation ratio-coach suggested

CAFIAS 5. Coach emphasis on content

CAFIAS 6. Verbal behavior

Discussion

Although the results of this study are limited in scope and meaning because of a small sample size, which in itself may be symptomatic of a much larger problem, the researchers believe the relationship of leadership and coaching to be of prime concern to those who would engage in sport.

The finding, that there were no significant differences between coach sex and coach leadership style, strongly indicated that males and females were more similar than different on this dimension. Differences in leadership style appear to be greater within groups rather than between groups. This supports the finding of Chapman (1974) that there were no signifcant differences between male and female leadership style in business and in the military and encourages more research into this area in physical education and athletics. It is appropriate here to include that in previous research the mean LPC score for groups responding to the questionnaire had been 58 ± 2. In fact, Fielder (1976), indicated that the mean score of 48 for coaches, although showing no differences between male and female coaches in leadership style, clearly illustrates that the coaches in this study were considerably more task oriented than leaders considered in any previously reported research.

The description of the observed interaction patterns reveals that there are similarities and differences between male and female coaches. A statistically significant difference was found only on the paramter of player initiation ratio , which may lead to the conclusion that

players are more willing to take risks with female than male coaches. Support for his conclusion comes from the work of Spence (1971) who found that females are preceived as less dominant than males in the classroom.

Although the interaction of sex and leadership style did not yield a significant multivariate F result, indicating that sex and leadership style are not major factors in leader behavior, the significant univariate F's on the sub-scales of Tolerance of Uncertainty and Consideration are of major importance.

On the dimension of Tolerance of Uncertainty, high LPC females. Low LPC Males were found to have a lower Tolerance of Uncertainty than low LPC female. This finding may indicate that players perceived the male coaches as more independent, which makes him better able to withstand group pressure. Krech and Crutchfield (1948) support this hypothesis.

On the dimension of Consideration, high LPC males were found to be higher on Consideration than high LPC females. Low LPC males were found to be lower on Consideration than low LPC females. This result seems to suggest that this finding is related to closer supervision on the part of females. The data for these two dimensions indicates that males tend to cluster at the extremes, while females cluster around a more central position. Chapman (1974) also noted that female leaders were more inclined toward the central tendency as opposed to committing themselves to either extreme.

Multiple regression analysis indicated that leadership style may be predicted from selected CAFIAS parameters dealing with the coaches

behavior. Specifically, as the total coach contribution increased, the leaders became more task oriented (low LPC). This supports the findings by Flanders (1970) and Charles (1972) that the teacher in a school environment, is the major influence in the classroom. A dominant teacher is likely to be task oriented and according to Nygaard (1971) lecture is likely to be the most prevalent behavior in the classroom. This seems to suggest that lecture may be the primary teaching behavior of the low LPC teacher (task oriented). Consequently, it seems quite likely that the task oriented, (low LPC) coach may be expected to be commanding and authoritative. Extended explanation in a boisterous manner may appear as a substitute for the more traditional lecture of the classroom.

It is also interesting to note that the more emphasis the coach placed upon content, the more person oriented (high LPC) the coach is likely to be. This relationship may be due in part to the coach's ability to pursue tasks and yet be able to satisfy player needs or it may simply be as Fielder (1974) contends, that in order to encourage players to pursue goals in athletics it is helpful or even necessary for the coach to exhibit person oriented behaviors. It should also be noted that as questions from the coach increased, the coach's person oriented behavior also increased. This would seem to suggest that a coach could use questioning, with regard to athletic content, to both increase player performance, and his person oriented behavior. In this regard it may be stated that selected CAFIAS parameters accounted for 25 percent of the variance in leadership style and therefore, may be a reasonable

predictor of a coach's leadership style in a universi.y athletic setting.

The study represents a first step toward an understanding of the complex relationship of leadership and coaching. Sex of the coach was investigated and found not to be a factor in the leadership process. The athletic hierarchy reveals, however, a disproportionate number of males in positions of greater responsibility. On the basis of the data presented here, one must conclude that leadership ability could not have been a legitimate factor in this process. Therefore, officials hiring leaders might give equal consideration to both sexes in the selection of individuals for positions of leadership.

Sex of the coach was also investigated in terms of leadership style and found not to be a factor. Females are not more likely than males to perceive their teams in more or less favorable terms. Coaches should begin to develop an understanding of their own leadership style and the situation in which they find themselves, in order to become more effective and more considerate. The environment may be the key variable here.

Athletics has provided a medium for the development of this study on coaching leadership. The data collected in this study seems to infer that additional work in this area is necessary. Bons (1974) suggested that work environment has an effect upon the leaders behavior and that we must consider both level of experience and the motivational structure of the individual leader in determining what sort of behavior is likely to result. It is necessary to conduct more research to predict the exact nature of these behaviors as well as the conditions

under which they occur. It seems clear that more effective coaching may result from a management system which attempts to match the coach situation, and players in accordance with the coach's leadership style.

On university playing fields there appears to be no significant sex role stereotypes which effect coach leader behavior. It seems apparent that sex does not appear to be a factor in either leadership style or coach leader behavior. This information provides little support for the contention that sex is a factor in either leader behavior, style or interaction.

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